LOGOSOL

USER MANUAL

USER MANUAL IN ORIGINAL FORMAT.

LOGOSOL Speed Saw

Read through the user manual carefully and make sure you understand its contents before you use the planer/moulder.

This user manual contains important safety instructions.

WARNING! Incorrect use can result in serious personal injury or even death to the operator or others.

Thank you for choosing a LOGOSOL machine!

Welcome! We are very pleased that you have demonstrated your confidence in us by purchasing this planer/moulder. We will do our utmost to meet your expectations.

LOGOSOL has been manufacturing wood processing machines since 1988, and since then we have supplied approx. 30 000 machines to satisfied customers worldwide.

We care about your safety as well as we want you to achieve the very best possible reslults from your machine. We therefore recommend that you take the time to read this user manual from cover to cover before you begin sawing. Remeber that the machine itself is just part of the value of the product. Much of the value is also to be found in the expertise we pass on to you in the user manual. It would be a pitty if that were not utilized.

We hope you get a lot of satisfaction from the use of your new machine.

Bengt-Olov Byström
Founder and Chairman of the Board
LOGOSOL AB, Härnösand, Sweden

CE

LOGOSOL is engaged in continuous development of its products.
We must therefore reserve the right to change
the design and form of our products.
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Document: Logosol Speed Saw Manual
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Last revised: April 2013
Manual, ref. no: 0458-395-0440
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SAFETY INSTRUCTIONS

- Read the entire user manual carefully before using the electric saw. Risk of mortal danger if you do not follow the safety instructions.
- LOGOSOL E8 Speed Saw is exclusively intended for rip sawing with the LOGOSOL Sawmill. Improper use can cause serious injury. Always be concentrated and careful when using this saw unit.
- Fit support legs under the guide rail before pushing the saw unit onto the sawmill. Otherwise the LOGOSOL Sawmill will tip over, unless there is no load on the log beds.
- Always make sure that the saw unit is pushed fully into position on the guide rail before connecting the power cable. If not all four plastic profiles clutches the guide rail flanges, there is risk of the saw unit being thrown out when started.
- Make sure that the power cable can run freely over the entire sawmill length. Never step on the cable. The power cable should be suspended by a wire above the sawmill.
- The eleectric saw together with the LOGOSOL Sawmill is a one-man sawmill. Respect the safety distance due to high noise level and risk of a broken chain being hurled out from the guide bar.
- Turn the saw unit off after each saw cut.
- Never work alone and make sure there are other persons within earshot whom you can summon if you need help.
- Always wear protective clothing and use personal protective equipment: Close-fitting work overalls are appropriate. Never operate the unit wearing loose-fitting clothes, overall coats or similar.
- Use safety shoes with high-grip soles and steel toecaps. Neckerchiefs, ties, jewellery or other items that can get caught in the equipment are not to be worn.
- Never stretch over or under the Logosol sawmill's guide rail when the sawmill is in operation. Rotating saw chain. Risk of cut injuries! The saw chain and other rotating parts are accessible on the guide bar side, underneath the saw unit on the operator side, and in the sawdust duct.
- Wear strong protective gloves. Risk of cut injuries when handling the guide bar and the saw chain. Cutting equipment can also be hot immediately after sawing.
- Never leave the saw unattended with the power cable connected so that unauthorized persons can start it.
- After service, the machine should be returned to its original condition. Only use original spare parts.
- Always disconnect the power before:
  ...changing guide bar and chain.
  ...adjusting, cleaning or other servicing.
  ...touching the moving parts of the saw unit.
  ...lifting the saw unit off the LOGOSOL Sawmill.

Hearing can be damaged after relatively short periods of exposure to the high frequency noise of the motor and the cutting equipment.

KEY TO SYMBOLS

For your own safety, read through the entire user manual carefully and do not start the machine before you have understood everything.

Use approved ear protectors and protective eyewear. Hearing can be damaged even after short periods of exposure.

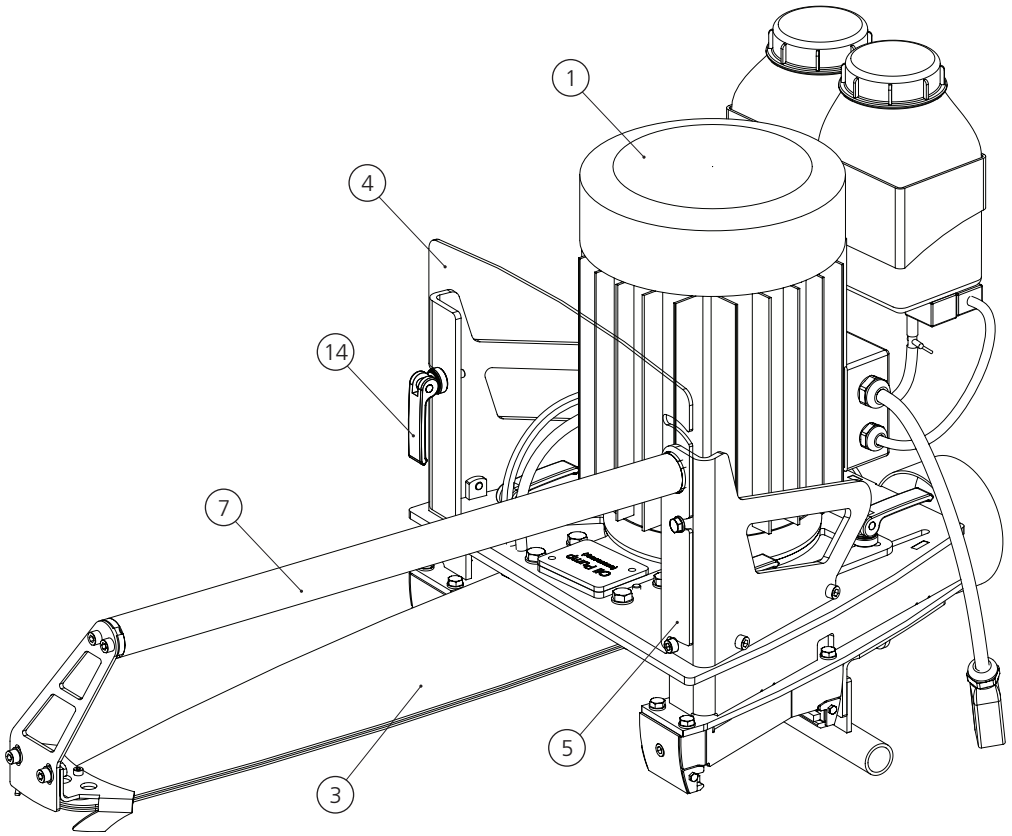
Rotating saw chain. Make sure that your fingers never move into the vicinity of the guide bar. Never reach over the guide rail. Never touch the Speed Saw when it is running.

This symbol means 'WARNINg'. Pay particular attention where this symbol appears in the manual text.

A warning comes after this symbol. Pay particular attention where this symbol appears in the manual text.

OVERVIEW

-	6608-000-0005	E8 Speed Saw 400V
-	6608-000-0010	E8 Speed Saw 230V
-	6608-000-0015	E4 Speed Saw 400V
-	6608-000-0020	E4 Speed Saw 230V
1.	8000-001-000X	Motor, 4kW
	6608-001-000X	Motor, 8kW
2.	6608-001-0060	Chassis
3.	3008-010-0050	Guide bar 50 cm
	3008-010-0070	Guide bar 70 cm
4.	6608-001-0130	Sawdust guard
5.	6608-001-0120	Right handle
6.	6608-001-0125	Left handle
7.	6608-001-0215	Tube, bar nose steering
8.	6608-001-0205	Bracket, bar nose steering
9.	6608-001-0210	Magnet holder
10.	6608-001-0225	Magnet, bar nose steering
11.	6608-001-0135	Feeder holder
12.	6608-001-0250	Line holder
13.	6605-000-0100	Water cooling
14.	5220-001-0059	Locking handle, excentric
15.	6608-001-0110	Right cover plate
16.	6608-001-0115	Left cover plate
17.	6608-001-0140	Knurled knob
18.	6608-001-0005	Cover plate
19.	6608-001-XXXX	Cable hook
20.	6608-001-0010	Motor mount
21.	6608-001-0015	Chain tensioner
22.	6608-001-0040	Spacer 12 mm
23.	6608-001-0025	Spacer 5 mm
24.	6608-001-0030	Outer chain guide
25.	6608-001-0035	Chain pulley 24t
26.	6608-001-0020	Spacer 10 mm
27.	6608-001-0045	Washer, motor shaft
28.	6608-001-0100	Aluminium profile
29.	6608-001-0105	Slide strip 50 mm
30.	9999-000-6031	Adjusting aluminium profile
31.	6670-001-0006	Locking plate, slide strip
32.	6608-001-0075	Bar mount
33.	6608-001-0080	Bar plate
34.	6608-001-0085	Cover plate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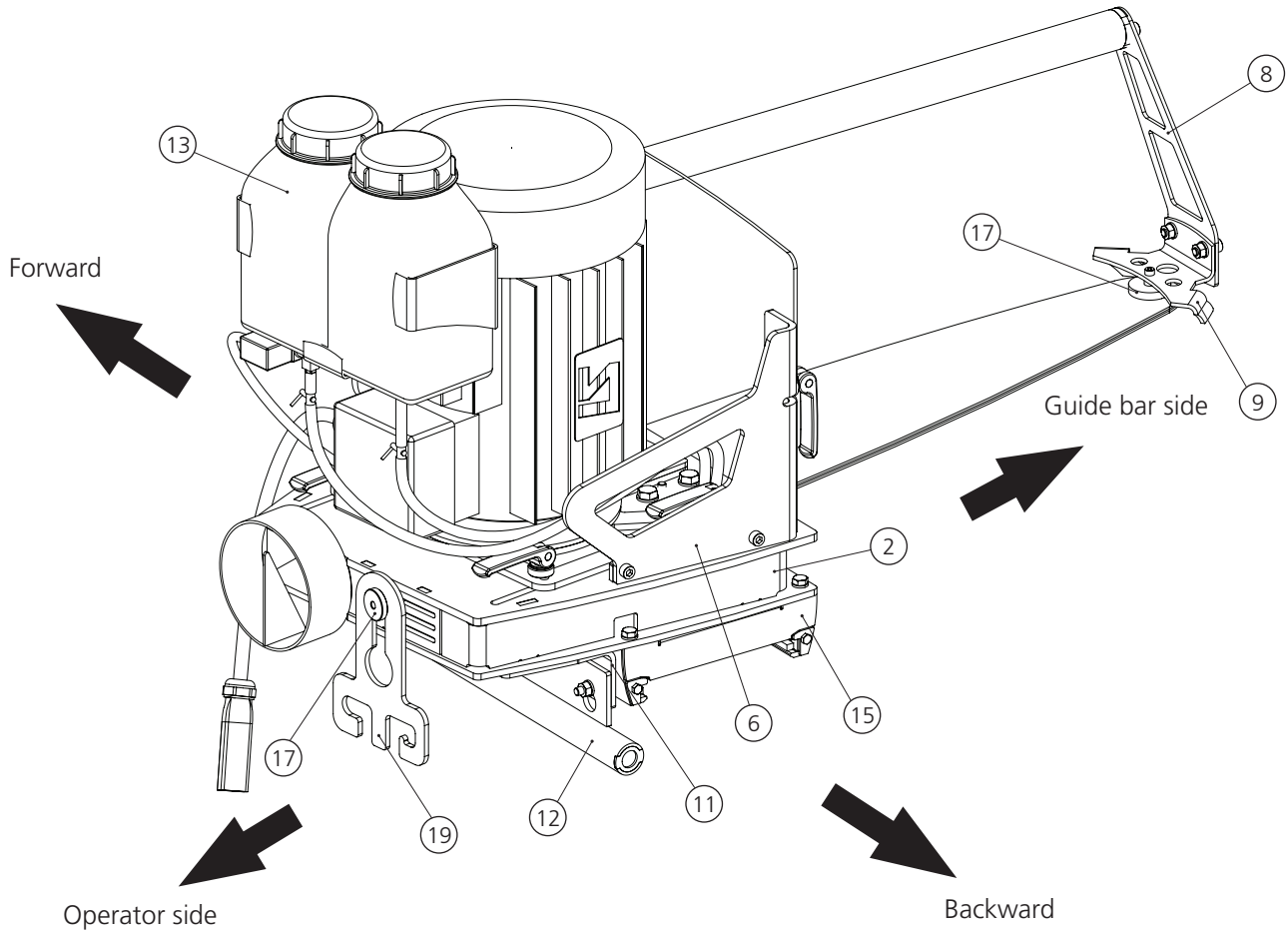
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Forward
Guide bar side
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12
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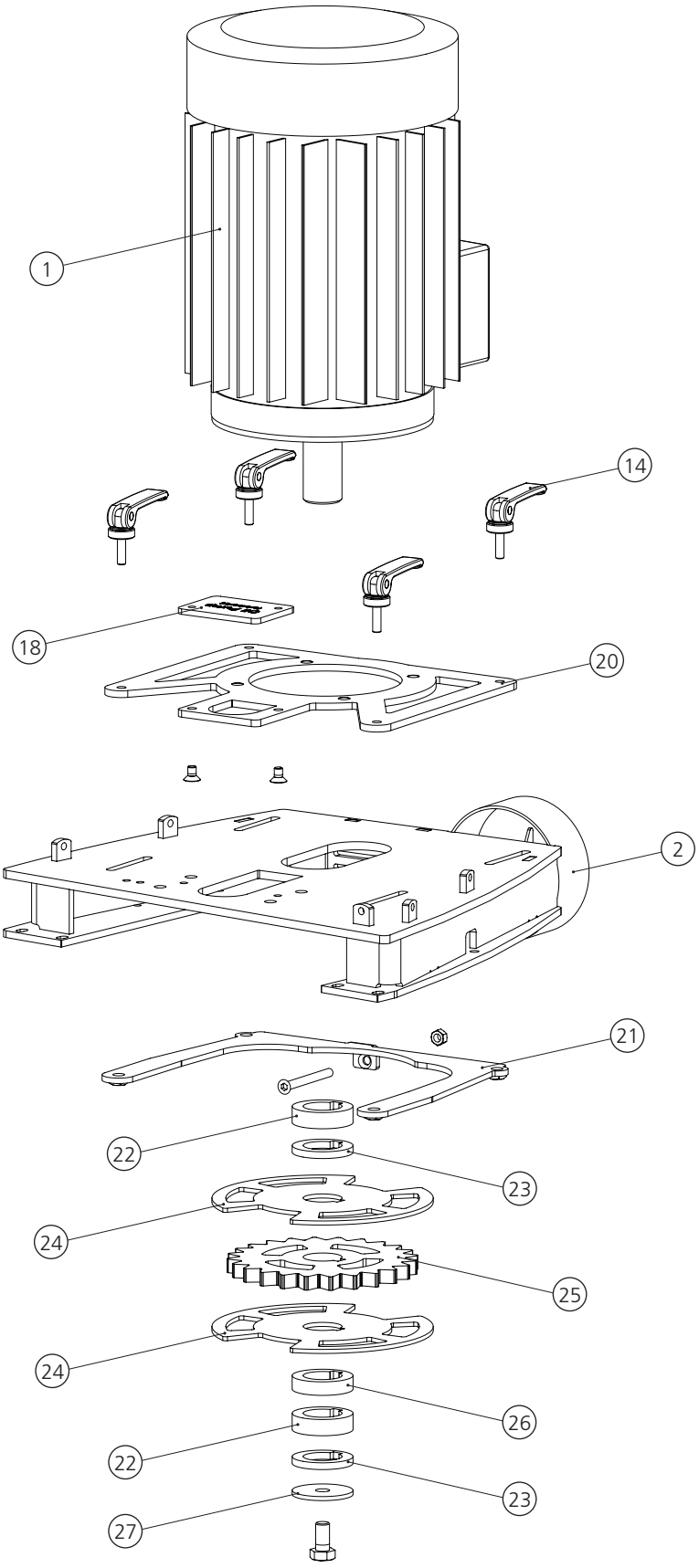
Operator side
Backward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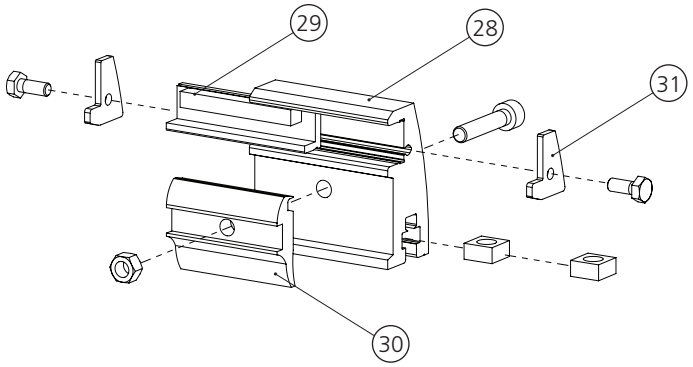
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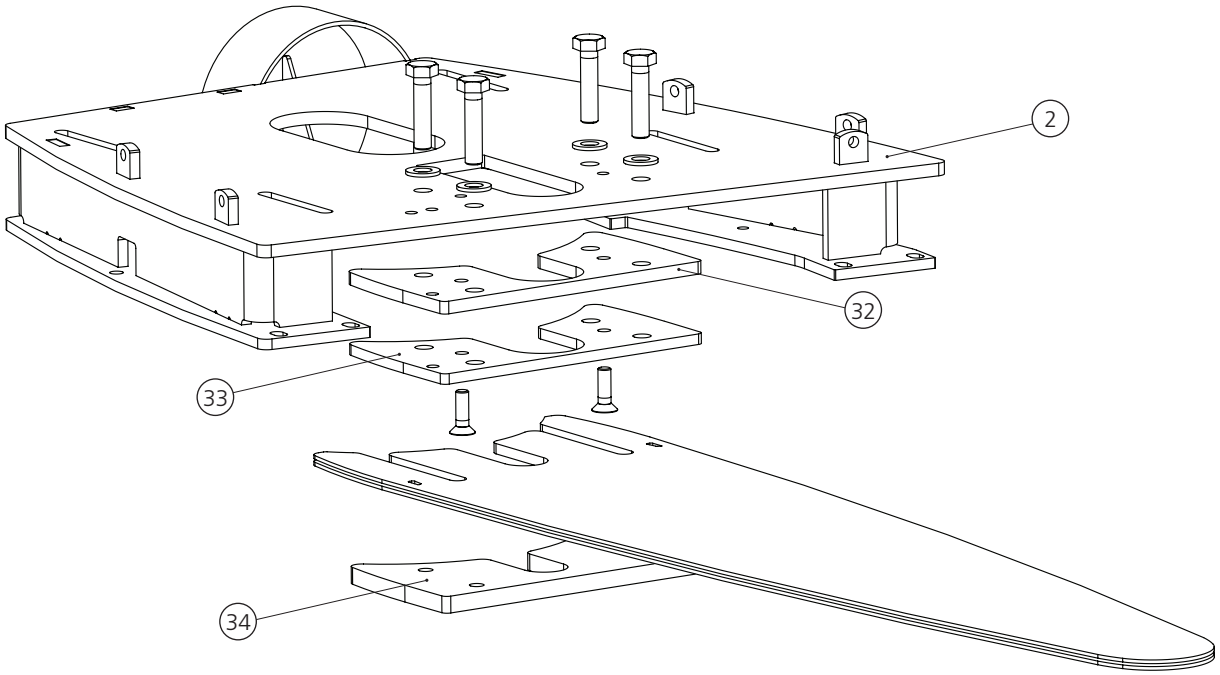
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MACHINE DESCRIPTION

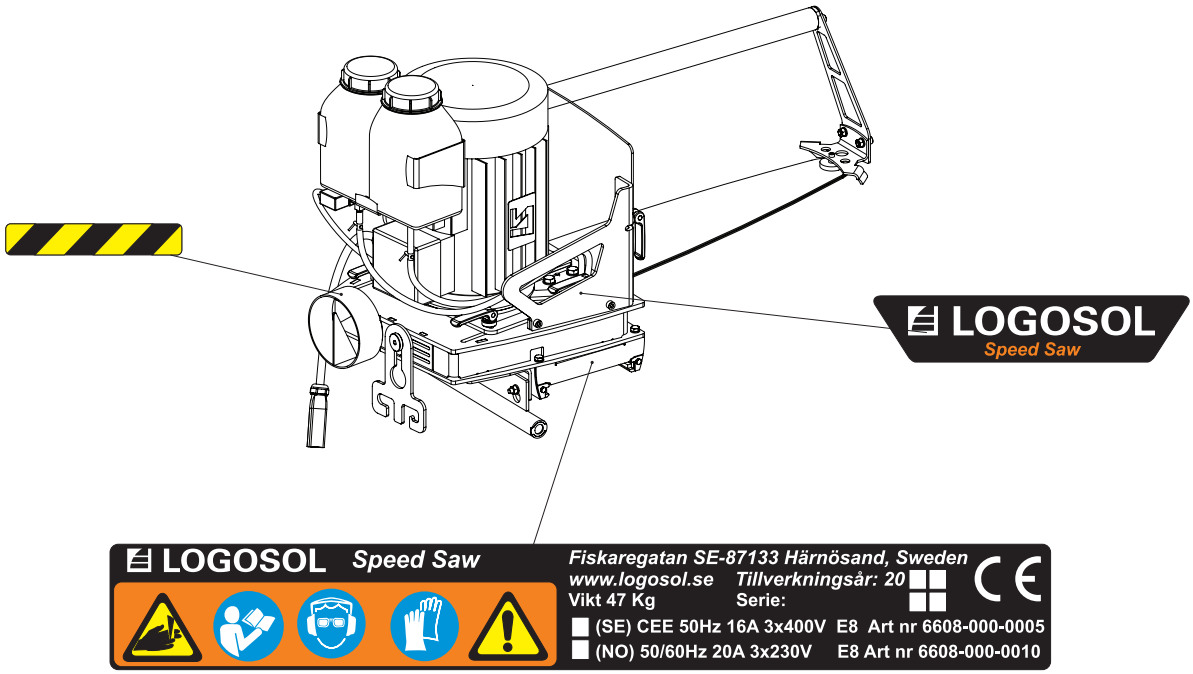
LOGOSOL Speed Saw is a chainsaw unit that is intended for usage on the LOGOSOL Sawmill.

The slide elements, which fit on the sawmill guide rail, are integrated in the machine. The saw is driven by an electric motor, which transmits the power to the chain via a large chain pulley.

The guide bars that are to be used, are specially adapted for the Speed Saw and are available in different lengths supplied by LOGOSOL. The Speed Saw has no own electrical system, but has to be connected to a manual feeder unit (ref. no. 6000-000-6005) or the automatic feeder unit E37 (ref. no. 6600-000-3015).

In its basic design the saw has a solenoid valve that controls the oil flow to the bar. Besides this, the Speed Saw has no own electrical system.

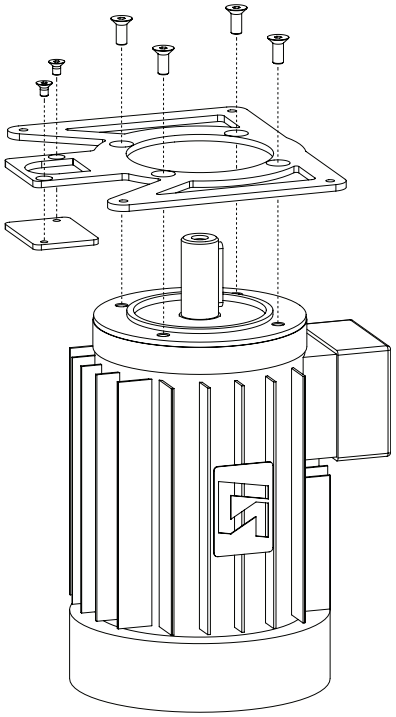
THE LABELING ON THE MACHINE


LOGOSOL
Speed Saw
LOGOSOL Speed Saw
Fiskaregatan SE-87133 Härnösand, Sweden
www.logosol.se Tillverkningsår: 20
Vikt 47 Kg Serie:
(SE) CEE 50Hz 16A 3x400V E8 Art nr 6608-000-0005
(NO) 50/60Hz 20A 3x230V E8 Art nr 6608-000-0010

TOOLS REQUIRED

- Allen key 4 mm (3/16")
- Allen key 5 mm (1/4")
- Combination wrench 10 mm (7/16")
- Combination wrench 13 mm (9/16")
- Combination wrench 17 mm (11/16")
- Screwdriver (or something else that is suitable for locking the rotation of the chain pulley)

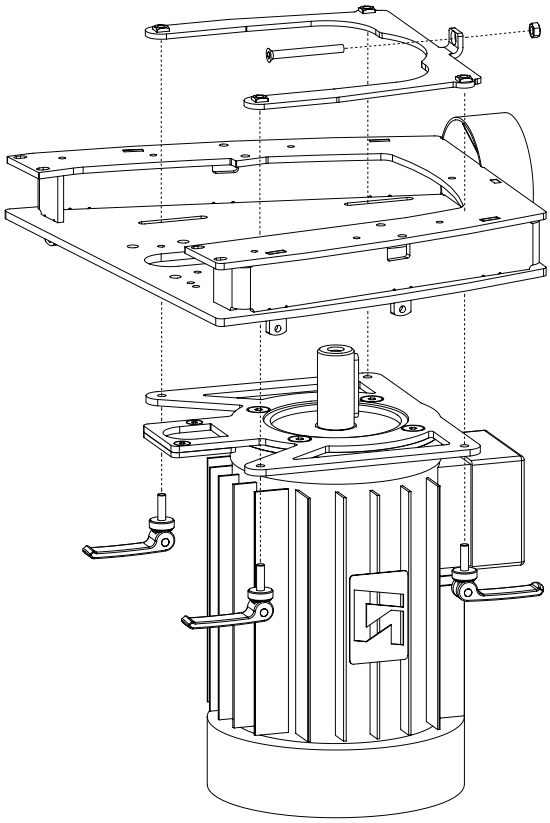
ASSEMBLY



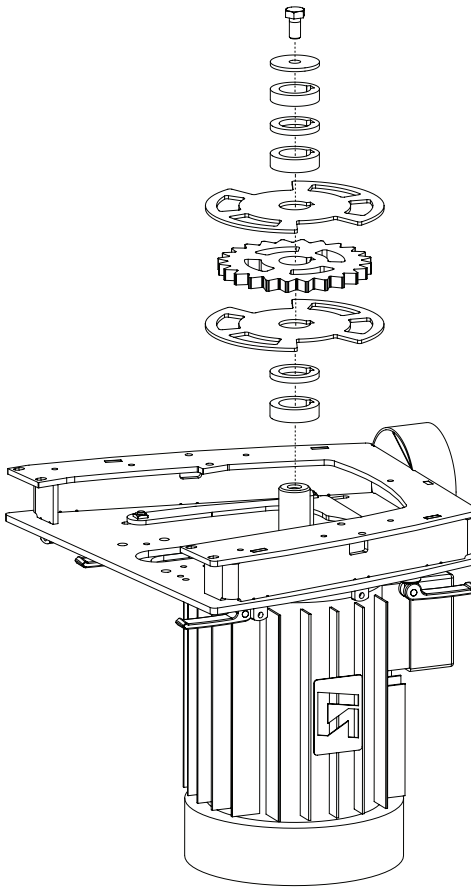
1. Fit the motor mount (20)* with four M8x20 countersunk Allen screws. Use medium strength threadlocker and torque the screws to 25 Nm.

Then fit the cover plate (18) with two countersunk Allen screws.

* Position no. in the exploded views.

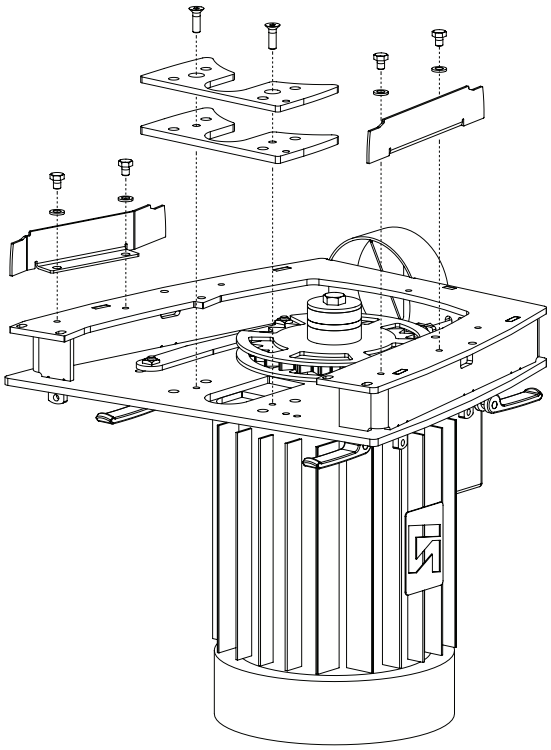


2. Place the chassis (2) on the motor mount (20) and fit the chain tensioner (21) to the chassis according to the figure to the left. Then fasten the full thread M6x60 bolt in the chain tensioner using an M6 nut. Screw the three components together using four excentric locking handles (14).



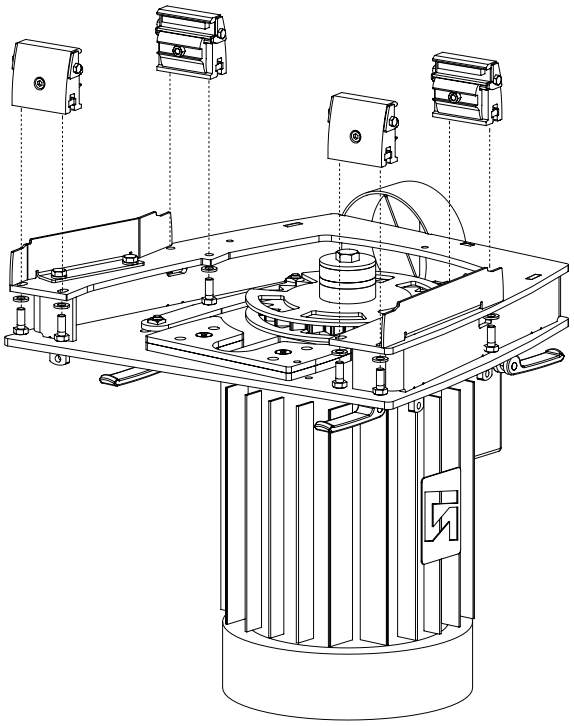
3. Fit spacers, pulley, etc. in following order: spacer 12 mm (22) , spacer 5 mm (23), chain guide (24), chain pulley (25), chain guide, spacer 12 mm, spacer 5 mm, spacer 10 mm (26) and last the motor shaft washer (27).

Lock the pulley with a screwdriver or other suitable tool, and fasten everything with an M10x30 hex screw. Use medium strength threadlocker and torque the screw to 25 Nm.

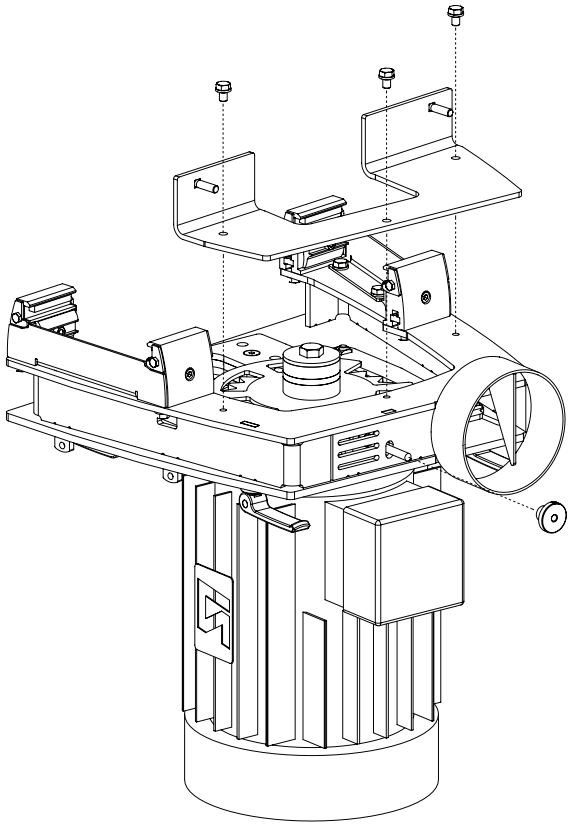


4. Fit the bar mount (32) and the bar plate (33) with two countersunk M6x16 Allen screws. Use medium strength threadlocker.

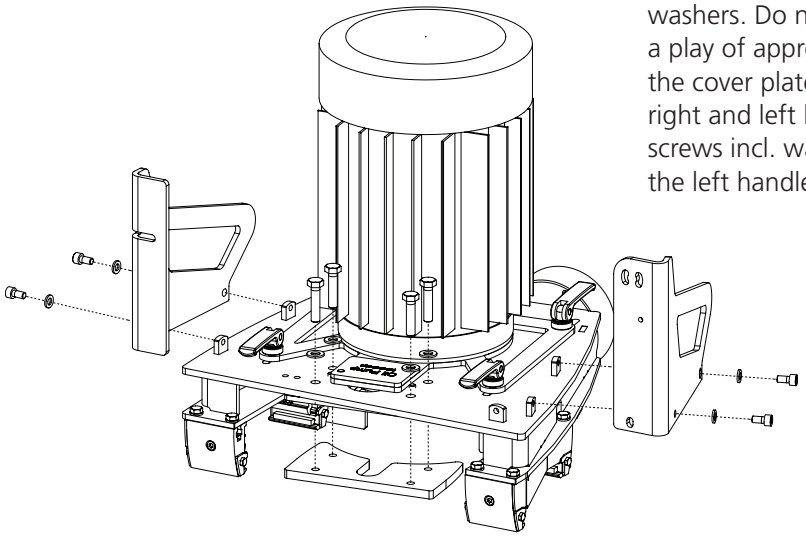
Then fit the right and left cover plates (15, 16) with M6x10 hex screws incl. washers. Do not tighten the screws.



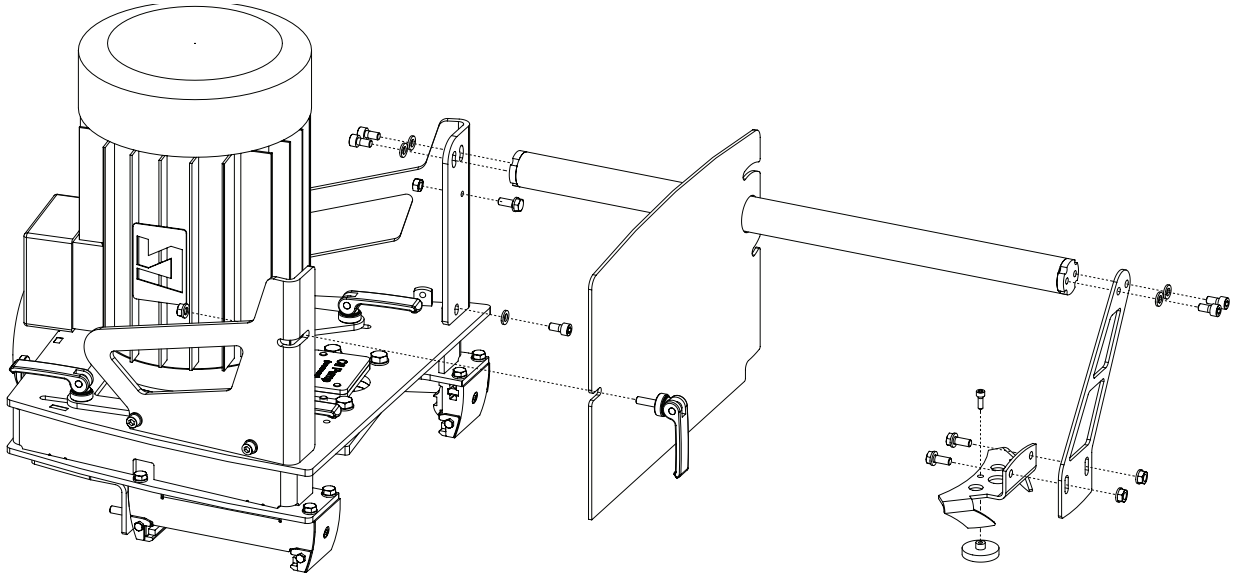
5. Fasten the complete alu profiles by fitting two M6 square nuts in each alu profile, and then fasten them by using M6x16 hex screws incl. washers. Then tighten the screws in the cover plates.



6. Fit the feeder holder (11) to the chassis (2) with three M6x10 hex screws incl. washers. Then screw the knurled chain tension knob (17) on the bolt protruding from the back of the chassis.

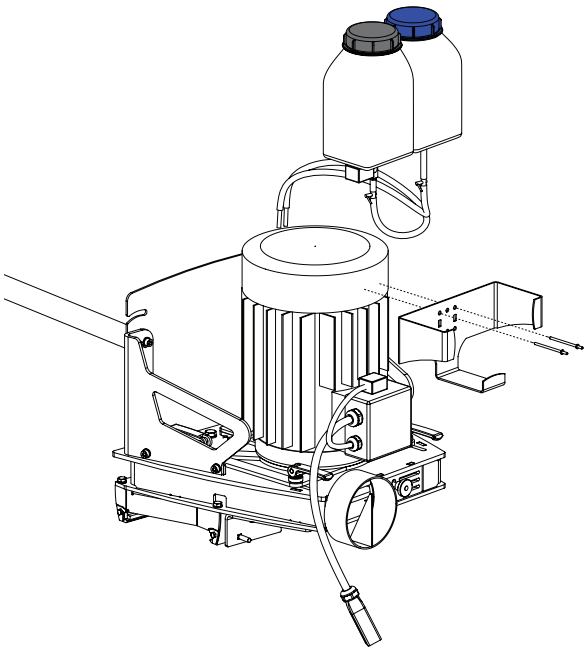


7. Fasten the cover plate (34) with four M8x35 incl. washers. Do not tighten the screws, but let there be a play of approx. 5-6 mm (approx. 1/4") between the cover plate and the bar plate (33). Then fit the right and left handles (5, 6) using M6x12 Allen screws incl. washers. Do not tighten the screws in the left handle.



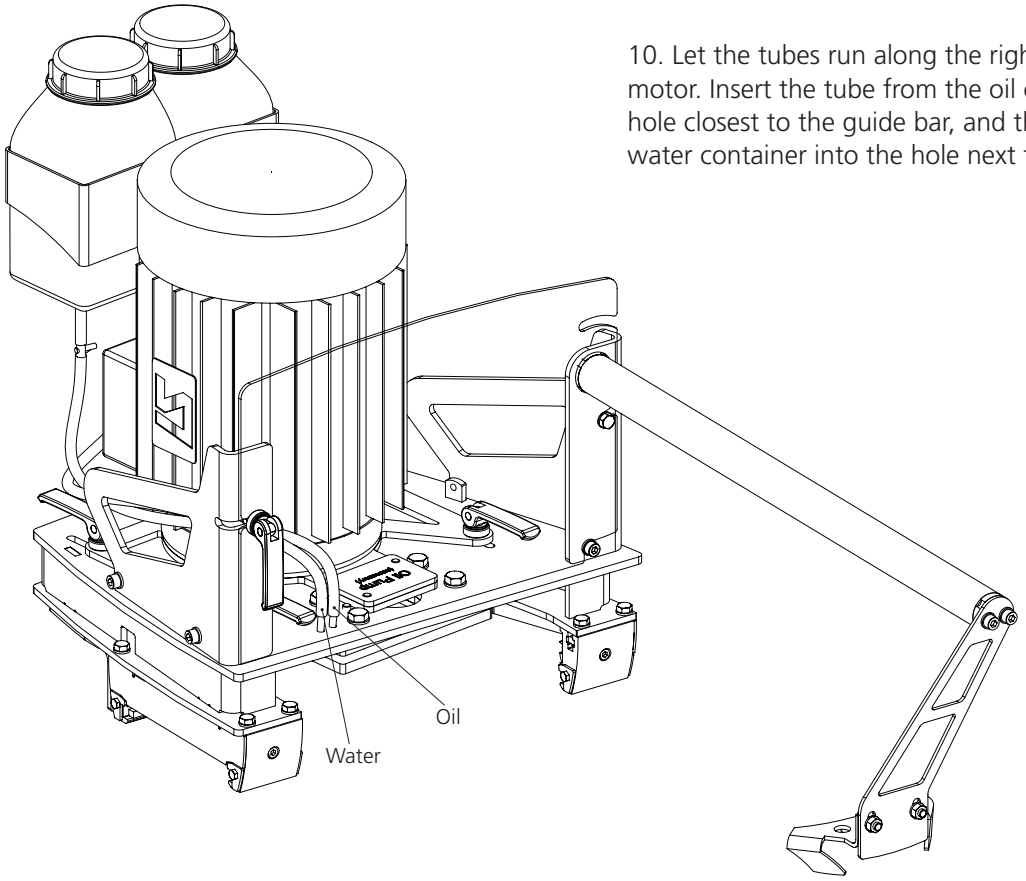
8. Fit the bar nose steering tube (7) using two M6x12 Allen screws incl. washers. Let the tube run through the hole in the sawdust guard (4) and fit the sawdust guard to the right handle of the saw (5) using an excentric locking handle (14) and two M6 nuts. Then fit the bar nose steering bracket (8) using two M6x12 Allen screws incl. washers, and fasten the magnet holder (9) with two M6x16 hex flange bolts and M6 flange nuts. Then fit the bar nose steering magnet (10) with a M4x8 Allen screw incl. washer.

Set the angle of the bar nose steering tube so that it is horizontally level by turning the left handle (6) and then tighten the screws on the side of the handle. Add a third M6x12 Allen screw with washer at the front edge of the handle. Then fit an M6x20 hex flange bolt in the threaded hole under the bar nose steering tube. Let there be a play of approx. 5 mm (approx. 1/4") at the front edge, to prevent the sawdust guard from being clamped. Fasten the bolt with a M6 flange nut.

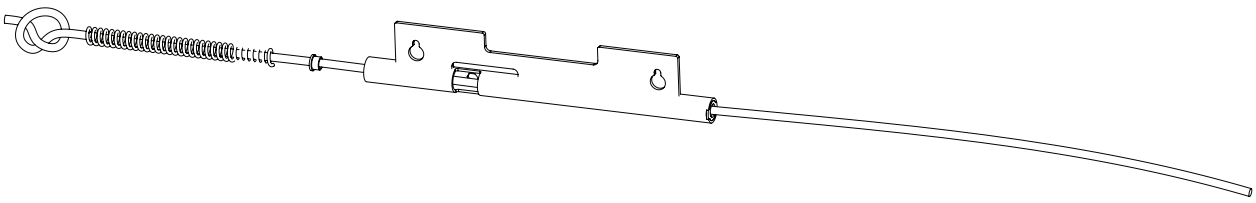


9. Rivet the bottle holder on to the motor. On the 8kW motor two holes have to be drilled. On the 4kW motor you can use one of the holes that holds the fan cover in position, and only one new hole has to be drilled.

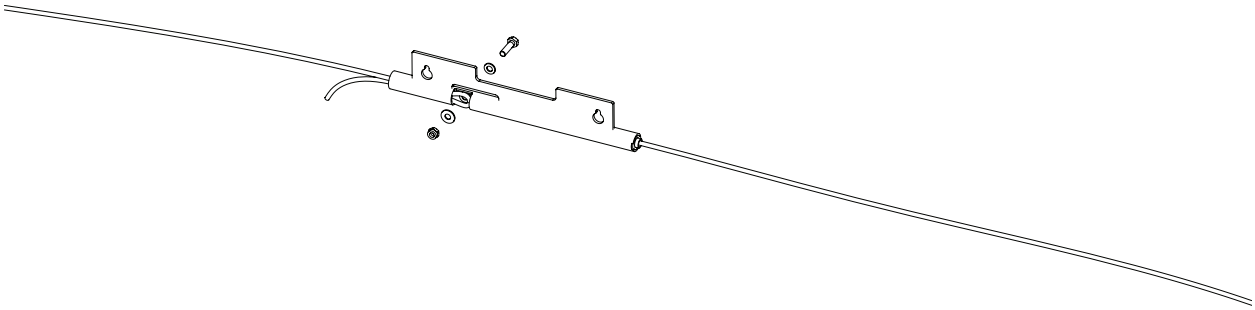
Put the bottles in the holder. The oil bottle with a black cap and a solenoid valve is to be placed to the left, and the water bottle with a blue cap to the right. Then connect the plug for the solenoid valve.



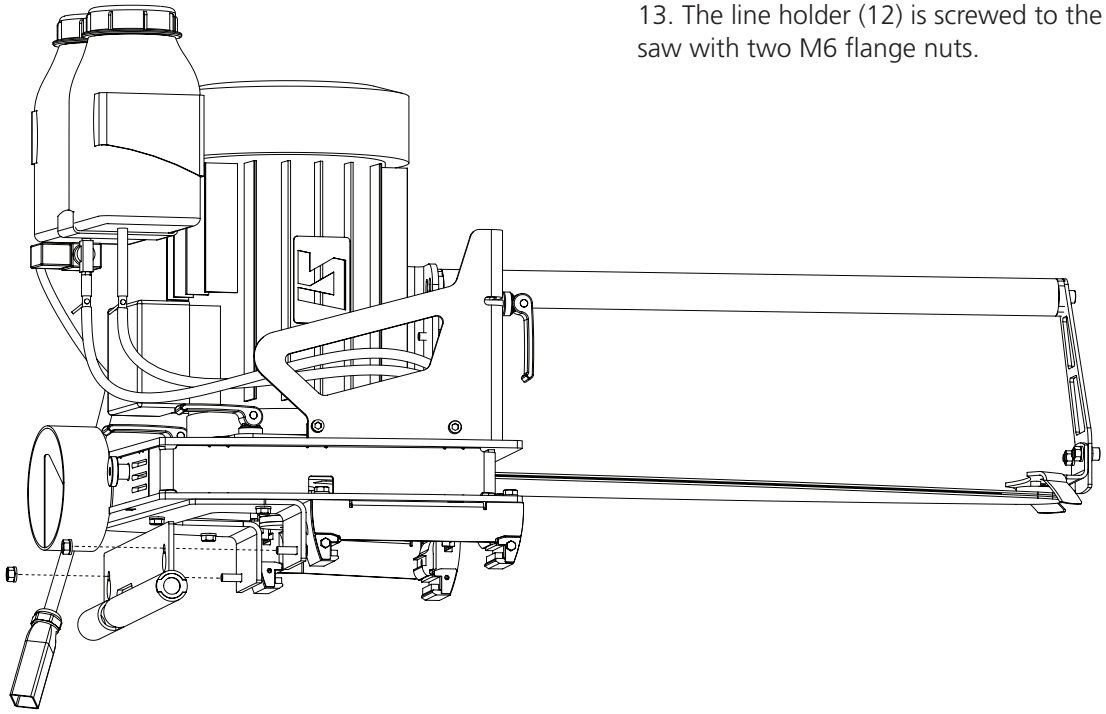
10. Let the tubes run along the right side of the motor. Insert the tube from the oil container into the hole closest to the guide bar, and the tube from the water container into the hole next to it.



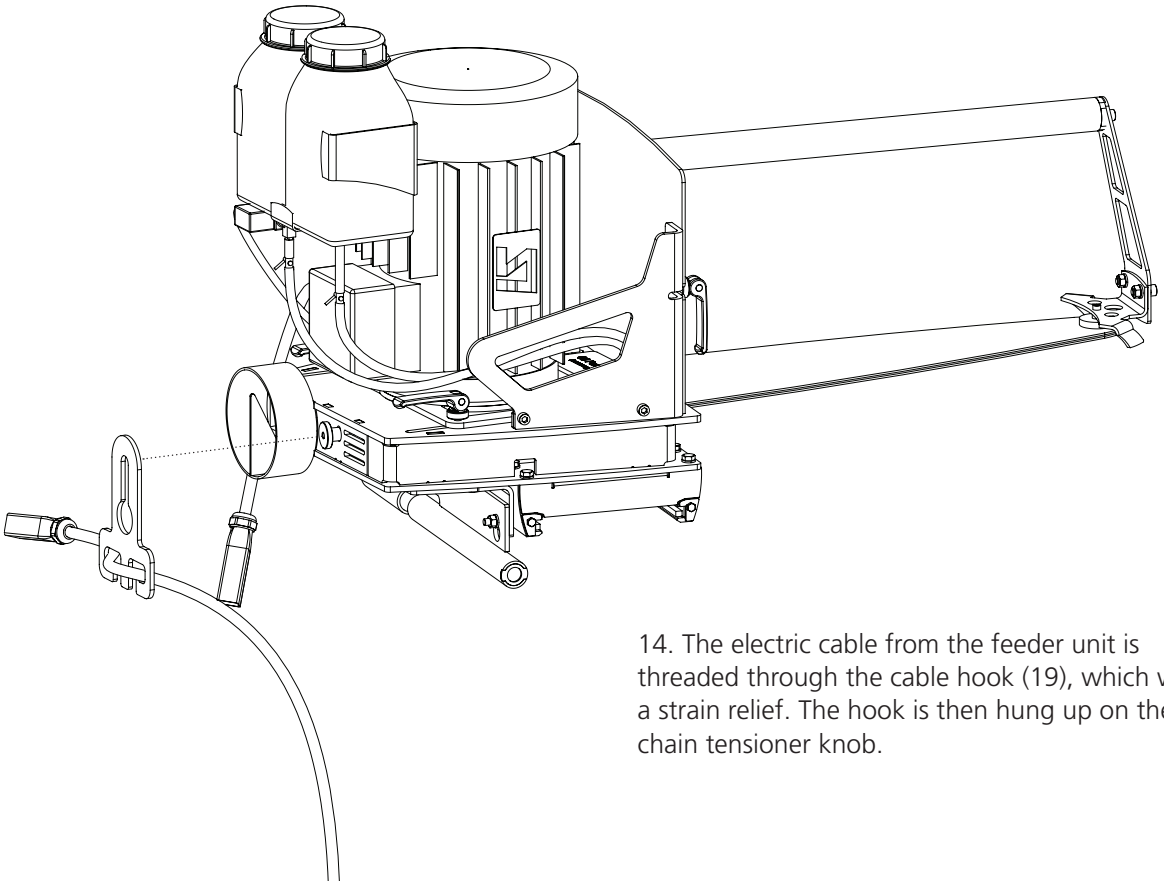
11. Take the line and thread it through the spring, the plastic bushing and the tube as shown above. Tie a knot at the line end and fit the plastic bushing and the spring in the spring attachment.



12. Fit an M8 flat washer on an M8x30 hex bolt and fasten it with an M8 flange nut with the flange facing outwards (towards the line). Then thread the line through the line holder, let it round the body of the bolt and finally thread the line out the same way. Fit the thick flat washer and the outer nut. Strech the line before tightening the nut.



13. The line holder (12) is screwed to the electric saw with two M6 flange nuts.



14. The electric cable from the feeder unit is threaded through the cable hook (19), which works a strain relief. The hook is then hung up on the chain tensioner knob.

LIFTING INSTRUCTIONS & SETUP

Fit the guide bar and chain after the saw has been mounted on the LOGOSOL Sawmill. The Speed Saw should be mounted on the guide rail of the sawmill before power is connected to the machine.

The saw unit weighs 40/47 kg (88/104 lbs). Best is if you have another person helping you lift the saw onto the ramp and hold it steady until it is correctly pushed onto the guide rail of the sawmill. Carefully slide the saw onto the guide rail so that the track in the plastic slide strips clasps the edges of the guide rail.

Make sure that the slide strips of the Speed Saw shut tightly around the edges of the guide rail in all four corners before guide bar and chain are fitted and the power is connected.

The Speed Saw can be driven by electric or manual feed. In both cases a line holder is fitted to the rear edge of the Speed Saw. Read the user manuals for the electric feeder E37 and for the manual feed unit for further instructions on connection and operation.

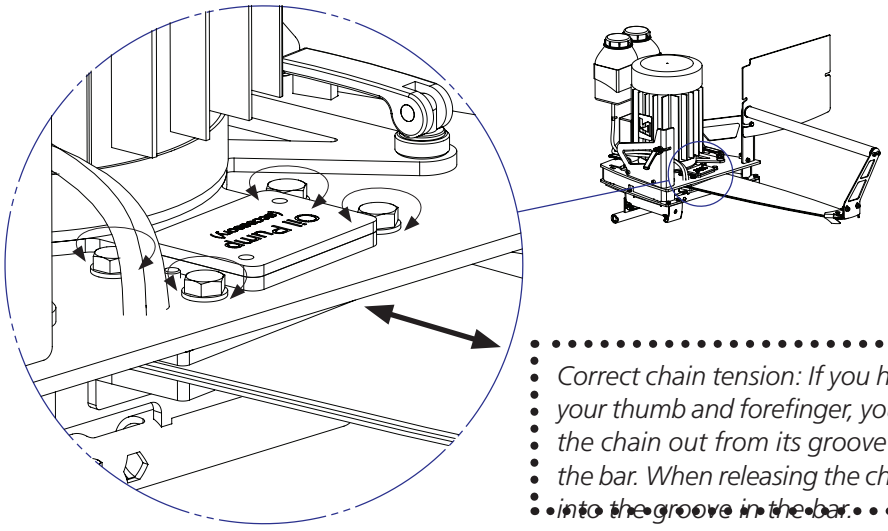
The sawmill should be secured to the floor or foundation and equipped with supports under both ends of the guide rail. On the side of the feed unit, you use the support leg of the feed unit, and on the other side of the guide rail the support leg with ref. no. 6600-000-3001.

Before the Speed Saw is removed from the guide rail, the power must be disconnected, the line holder unscrewed and the guide bar removed.

FITTING GUIDE BAR & CHAIN

Make sure that the power cable is unplugged.

- Loosen the guide bar bolts on the top side of the saw until the cover plate comes in such a low position that the guide bar can be inserted. Ensure that there is no sawdust between the bar plate and the cover plate. The guide bar should be fitted as far in as possible to ensure that the oil hole comes in correct position.
- Loosen the chain tension knob at the back of the saw about 3 cm (1 3/16"). Loosen the excentric locking handles and push the motor towards the guide bar.
- Hold the chain so that it forms a loop.
- Fit the chain on the chain pulley under the motor. The outer chain guide has a recess on which the chain is placed.
- Gently pull the chain so that the pulley rotates. The cahin will then come in position on the teeth of the pulley.
- Fit the chain in the groove in the guide bar and push the moter back in place. Tension the chain a final time using the chain tension knob.
- Secure the motor by tightening the four excentric locking handles.



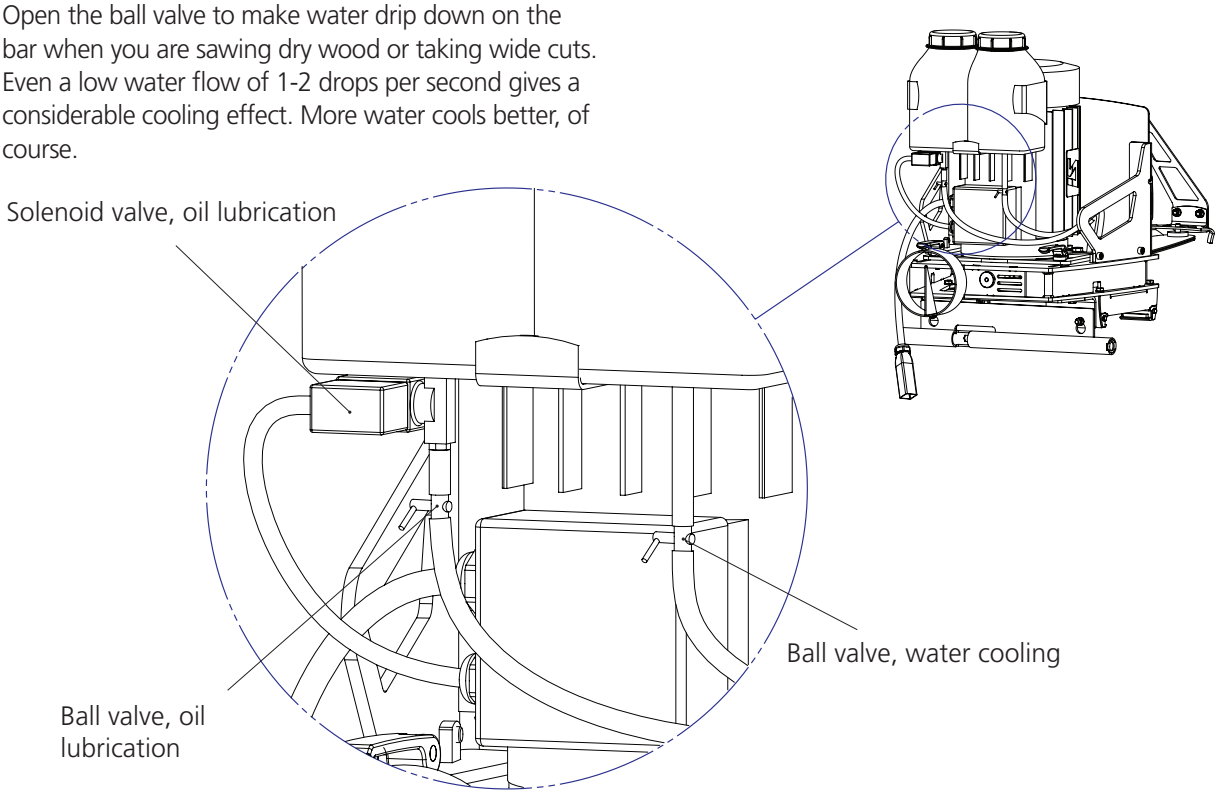
Correct chain tension: If you hold the chain between your thumb and forefinger, you should be able to pull the chain out from its groove at the middle point of the bar. When releasing the chain it should snap back into the groove in the bar.

CHAIN LUBRICATION & WATER COOLING

In its basic design Logosol Speed Saw has a solenoid valve that controls the supplying of oil. The oil runs down on the bar by gravity feed. The flow is adjusted by a ball valve. Only use Arborol chain oil or other viscous oil, as the supplying of oil is done without oil pump.

The water cooling is completely manually controlled. Open the ball valve to make water drip down on the bar when you are sawing dry wood or taking wide cuts. Even a low water flow of 1-2 drops per second gives a considerable cooling effect. More water cools better, of course.

Oil pump and automatic water cooling
If you want to upgrade your Speed Saw to get even better capacity, it can be supplemented with a mechanical oil pump (ref. no. 9999-000-9999).

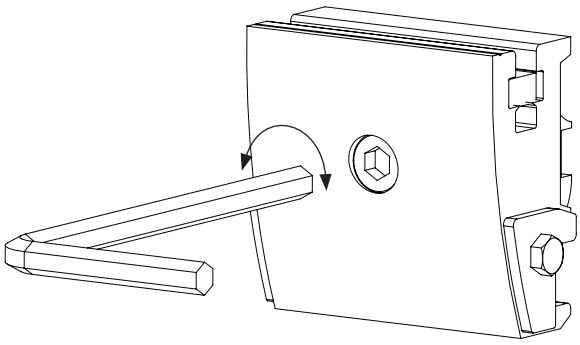


ADJUSTABLE SLIDE PROFILES

The Speed Saw has adjustable slide profiles. These make it possible to adjust the play between the elecric saw and the guide rail of the Logosol Sawmill.

Adjustments should only be made when the saw is mounted on the guide rail of the Logosol Sawmill. Tighten the screw in each adjusting aluminium profile by turning it clockwise a quarter of a turn at a time, as long as the saw slides without difficulty along the whole length of the guide rail. When it begins to be difficult to move the saw you loosen the screws a quarter of a turn.

Note that there should always be a certain degree of play. Lateral play has no effect on the result.



SAWING WITH THE LOGOSOL SPEED SAW

BEFORE EACH WORK SESSION

- Make sure that the saw is correctly mounted on the guide rail.
- Make sure that the guide bar and chain are in good condition.
- Fit the saw chain and make sure that it runs easy and is correctly tightened.
- Check the chain oil level.
- KMake sure that the power cable is in good condition.

AFTER EACH WORK SESSION

- Disconnect the power by pulling out the plug of the power cable.
- Remove the saw chain.
- Clean the Speed Saw with compressed air e.g., and Universal oil (ref. no. 9999-000-5105). The oil is dirt dissolving and protects against corrosion. A clean motor is more easily cooled and is more efficient.
- Tip: Grind the bar rails often to prevent them from being worn more on one side than the other. This way the bar will last longer and you get a better sawing result.

CUTTING EQUUIPMENT

Due to the high output of the motor it is imoprtant that you immediately stop sawing when the chain loses its sharpness. Even a few seconds of sawing with a dull chain will expose in the bar to heavy wear and the chain will be overheated, after which it cannot regain its sharpness.

For information, read the booklet *The Handbook for Your Cutting Equipment* handbok för din skärutrustning" which can be downloaded free on LOGOSOL's website.

http://www.logosol.se/

STORING THE ELECTRIC SAW

Cover the Speed Saw and the feed unit with a rain cover if the saw is stored outdoors.

Empty the water system of water if there is risk of ice formation.

Vegetable oil can harden over time and cause problems in the oil system. When you know that you are not going to saw for a couple of months, empty the bottle of vegetable chain oil and fill it with a small amount of mineral oil.

Electric motors should be stored in heated premises to prevent condensation in the motor housing, which occurs due to temperature changes. If the motor is stored outdoors for a longer period of time, you should check that there is no water in the motor before it is connected to electricity. The motor is equipped with a drain plug.

ELECTRICAL SYSTEM

The Speed Saw has no own electrical system, but should be connected to a feed unit equipped with a starter.

The motor is a three-phase 220/400V or 400/600V. The motor is connected to the phases the standard way, depending on which voltage it will be driven by.

The electric motor is equipped with overheating protection, which is connected to the terminal block of the motor. It is to be connected to the phase and neutral in the hold circuit. Read the instructions for the feed unit.

The Speed Saw consumes a lot of electricity when it is heavy loaded, so it is crucial that the electrical equipment is in perfect condition. We recommend that you buy a new power cable to reduce the risk of poor power supply. A damaged cable gives you lower output and can damage the motor and the contactors.

Be careful with the power cable you use for the saw. Never step on the power cable or let it be run over by a vehicle.

Do not use a too long extension cord. If you use a 25 m (82 ft) long power cable it can be 2.5 mm^2 (1/8”). If you use an extension cord that is longer than 25 m it should be 4 mm^2 (3/16”).
LOGOSOL supplies extension cords that are 2.5 and 4 mm^2 with 16A socket and plug.

TECHNICAL DATA

LOGOSOL E4/E8 SPEED SAW	
OUTPUT	
Rated power E4 Speed Saw	4 kW
Rated power E8 Speed Saw	8 kW
TRANSMISSION	
Direct drive	24t chain pulley
Rotational speed	2850 rpm.
Chain speed	22.5 m/s (74 ft/s)
NOISE LEVELS	
Sound pressure, unloaded	97.0 dB(A)
Sound pressure, loaded	102.0 dB(A)
Sound power level	113.0 dB(A)
DIMENSIONS	
Height	475 mm (1 ft 6 45/64”)
Length	860 mm (2 ft 9 55/64”)
Width	365 mm (1 ft 2 3/8”)
Weight	40/47 kg (88 or 104 lbs)
CUTTING EQUIPMENT	
Logosol 3/8” Speed Saw guide bar 1.3	50/70 cm (1 ft 7 11/16” or 2 ft 3 9/16”)
Stihl 3/8” Picco Rollomatic 1.3 saw chain	50/70 cm (1 ft 7 11/16” or 2 ft 3 9/16”)

Declaration of conformity

Logosol AB
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hereby guarantees that LOGOSOL Speed Saw, with ref. no. 6608-000-0005, 6608-000-0010, 6608-000-0015, 6608-000-0020 is manufacturedin conformity with Machinery Directive 2006/42/EG, EMC Directive 2004/108/EG and LVD Directive 2006/95/EG, and in accordance with the following harmonized standards: EN ISO 12100:2010, EN 60204-1:2006, EN 61000-6-1, -3

Mattias Byström, Product Manager, is answerable for technical documentation.

Härnösand 2013-03-27

Malte Frisk, CEO

CE

LOGOSOL

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